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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,607	10/26/2001	Farhad Abbasi Ghelmansarai	2001P18159US	2504

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EXAMINER	
CHURCH, CRAIG E	

ART UNIT	PAPER NUMBER
2882	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,607	GHELMANSARAI ET AL.	
	Examiner	Art Unit	
	Craig E. Church	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-30 and 34-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-8,22-27* is/are allowed.

6)☒ Claim(s) *9-19,21,28-30 and 34-36* is/are rejected.

7)☒ Claim(s) *20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9-16 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either an asserted utility or a well established utility. These claims merely recite means for generating a set of unrelated signals that are connected to no user apparatus and that perform no defined functions.

Claims 9-16 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either an asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

> subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-19 and 21 are rejected under 35 U.S.C. 102(a,e) as being anticipated by Frojdh (6307915). Frojdh teaches synchronous x-ray image detection comprising pulsed x-ray source 11 (lines 55-58 of column 2), two dimensional image sensor 13 having reference pixels 15 for indicating the presence or absence of x rays, interface 30 having Boolean logic circuits 33/34 (OR and AND gates) for triggering the start of image acquisition at the beginning of an x-ray signal and for triggering readout in response to termination of an x-ray signal and display. Reference pixel signals occurring between "Start of exposure" and "Start of exposure detected" in figure 4 are responsive to turn on of high voltage of the x-ray source. The control circuitry responds to different x-ray pulse width by sensing the actual x-ray emission or by exposure timers.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 28-30 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frojdh in view of Bertsche (6487274). Frojdh does not teach to combine his apparatus with an x-ray therapy machine. Bertsche teaches x-ray therapy apparatus comprising pulsed linear accelerator x-ray source 26 and digital imager 42. Lines 14-17 of column 2 of Frojdh explain that his imager may

be used with any x-ray source, and it would have been obvious to employ it in the Bertsche therapy machine to reduce image artifacts as taught by Frojdh (lines 21-34 of column 1). The method steps defined in these claims would have been inherent in operating the Frojdh/Bertsche system, ie forming a low dose (scout) image for patient registration and then irradiating and imaging with high dose x rays for therapy.

Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-8 and 22-27 are allowed.

Applicant's arguments filed March 18, 2004 have been fully considered but they are not persuasive. The "signal" in claim 17 corresponds to the output of Frojdh's reference pixels 15.

The subject matter of claims 9-16 is not supported by either an asserted utility or a well established utility. These claims merely recite means for generating a set of unrelated signals that are connected to no user apparatus and that perform no defined functions. Furthermore, since the claimed invention is not supported by either an asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

The method steps defined in claims 28-30 and 34-36 would have been inherent in operating the Frojdh/Bertsche system, ie forming a low dose (scout)

image for patient registration and then irradiating and imaging with high dose x rays for therapy even though claims 28 and 34 omit the step of therapeutic irradiation despite the fact that the claim preambles declare that the steps perform therapy.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Craig E. Church at telephone number(571) 272-2488.

Craig E Church

Craig E. Church
Senior Examiner
Art Unit 2882